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(Un)Complicating Planning and Revising: Metacognition and Problem-Based Tutoring

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The challenges of creating a reusable rhetorical plan

Many writing center visits deal with two concerns: planning or revising text. Yet it often seems that no matter how many strategies for planning and revising we recommend to and model for clients, many of them continue to visit us for these same difficulties.



Dr. R. Evon Hawkins

Why do clients struggle with creating rhetorical plans and globally revising their texts, and how can peer tutors help clients cultivate effective planning and revision practices? Problems with planning and revising differ depending upon the student and the task. Nevertheless, many clients may struggle because they don't view writing as a problem-solving process that involves addressing a particular audience, selecting and narrowing not only a "topic" but a thesis and support, establishing a purpose for the text, and creating a persona. Instead, clients come to writing with "ideas" for what they want to write about and begin producing text as soon as they feel they have "something to say." Because clients have paid scant attention to audience, purpose, or persona, as their resulting products show, they have no starting point from which to review how or if their texts have successfully addressed an audience, achieved a purpose, or created an ethos.

Linda Flower and John Hayes posit that what we consider to be "sophisticated" text results from sophisticated representations of a rhetorical problem. Flower and Hayes define the rhetorical problem "as an elaborate construction which

the writer creates in the act of composing" ("Cognition" 22). That is, writers develop goals for "affecting the reader, creating a persona or voice, building a meaning, and producing a formal text" (24) based on the audience, subject, purpose, and ethos they represent to themselves.

Writing center tutors can help clients understand writing as a process for solving a task-specific rhetorical problem, thereby enabling clients to make rhetorical planning and global revision part of their writing processes. Doing so, however, means going beyond the truism that sophisticated rhetorical problem-solving results in sophisticated text. We must examine how rhetorical problem-solving seems to influence student writers' planning, drafting, and reviewing processes in order to better understand the role metacognitive awareness plays in rhetorical problem-solving.

First, I want to clarify my use of the term "metacognition," which is often defined as "thinking about thinking." While this simple definition suffices for the broad strokes, when applying metacognition to tutoring it is as reductive as saying cognition is just "thinking." It glosses over the vast array of mental processes that comprise "thought."

Metacognitive knowledge is valuable because it enhances expertise in selecting and applying writing strategies such as outlining, diagramming, glossing, or proofreading.

"Metacognition" serves as an umbrella term covering a host of meta-level activities that guide cognition. These activities can be separated into three categories: (1) metacognitive knowledge, or our understanding of our cognitive processes; (2) metacognitive experience, or feelings generated by cognitive activity, such as "feelings of knowing"; and (3) metacognitive skills, or control of cognition through planning, monitoring, and regulating thought.

We are not always aware of our metacognitive processes, for some metacognition occurs either tacitly, below the threshold of awareness, or automatically, because expertise precludes the need for awareness. Heightened consciousness of cognitive activity is not necessary for all writers on all tasks; however, neither tacit nor automated metacognition has been shown to increase knowledge of our cognitive acts since we cannot articulate or reflect upon these processes. Metacognitive knowledge is valuable because it enhances expertise in selecting and applying writing strategies such as outlining, diagramming, glossing, or proofreading.

According to cognitive scientists Janet Davidson, Rebecca Deuser, and Robert Sternberg, all problem-solving includes cognitive processes for creating mental representations of the problem, establishing goals for a successful outcome, and handling difficulties while transforming "problem" into "solution." Davidson, Deuser, and Sternberg's research indicates that the complexity of problem-solving requires meta-level attention to planning, monitoring and regulating cognition. Likewise, Flower and Hayes claim the cognitive complexity of rhetorical problem-solving demands metacognitive processes that support task representation and goal-setting.

I saw this evidenced during a semester-long inquiry into metacognitive activities advanced undergraduate writers appeared to take during composition. After recognizing that the writing task was "ill-defined" (it did not specify everything the writer needed to know to produce a successful text), participants defined audience, purpose, and ethos for themselves and established goals for

addressing those elements. But rhetorical problem-solving didn't seem to stop there. My student illuminated metacognitive processes that confirmed Flower and Hayes' linkage of sophisticated texts to these participants' representations of sophisticated rhetorical problems.

First, metacognitive skills for planning what to say and how to say it prompted participants to define and establish goals for addressing the rhetorical problem. For example, as he prepared an encyclopedic entry on the disappearance of the dinosaurs for an imaginary student publication by Rolling Stone magazine, one participant, Jemarcus, stated that his purpose was to inform readers on his topic. As he sorted through research on the subject, his purpose became increasingly refined, eventually encompassing goals for making his text interesting to readers who might not know or care about the dinosaurs; to articulate complex theories in a language and organization his readers would find easy to process; and to use the entry to prompt readers' desire to know more about his topic. Thus through metacognitive planning participants appeared to integrate their network of rhetorical goals into a meta-level model of the text they wished to produce. This model provided a reference point from which participants generated ideas for composing both before and during text production.

Second, metacognitive skills for monitoring and regulating cognitive behavior were informed by participants' meta-level models, for participants seemed to use these to evaluate the success of their emerging texts in achieving rhetorical goals. In Jemarcus' case, for instance, he reported that after creating a rough outline of the encyclopedic entry in Microsoft Word, he realized that he was including too much irrelevant information, such as an entire section devoted to his sources' methodological approaches. His goal of making the text "accessible" to readers, as he termed it, was not being met because he was including information that might unnecessarily confuse his readers.

My research suggests that writers are able to apply the web of purpose to planning, drafting, and revising because throughout the process of composition they make rhetorical decisions based on how well their actual text matches their meta-level model.

As Jemarcus discovered, rhetorical goals often do not automatically translate into successful texts. For one thing, participants' reported that their task representations and goals evolved as they composed and reviewed, requiring on-going attention to how or if their original meta-level models were still desirable. For another, what Linda Flower has called "goal networks," the interrelated and emerging sense of purpose (or purposes) writers create during planning, drafting, and reviewing, seemed too vast and complex for participants to fully realize all of their goals in a text.

In "The Construction of Purpose in Reading and Writing," Flower posits that instead of a single purpose (i.e., "to inform") for a text, writers create an elaborate, multivalent "web of purpose" in which some goals are privileged, some are forgotten, and some are revised during composition. For instance, Jemarcus ultimately concluded that he could not find a "common thread" which tied the disparate theories on how the dinosaurs disappeared together; the experts simply disagreed. Instead, he reportedly focused more on clearly differentiating these theories so that readers could make their own informed decision about which was more realistic. Furthermore, as he composed Jemarcus became increasingly convinced that a student encyclopedia should do

more than inform; he believed his text needed to make readers want to learn more about his topic. To achieve this goal, he focused on the “thrill of scientific discovery” he saw running through each of his sources.

Like many participants, Jemarcus’ goals were selectively realized as he read his emerging text against the model text he wished to create. Some original rhetorical goals were revised, and some new goals emerged as he wrote and reviewed his text. My research suggests that writers are able to apply the web of purpose to planning, drafting, and revising because throughout the process of composition they make rhetorical decisions based on how well their actual text matches their meta-level model.

Before turning to how tutors can apply this research to clients’ planning and revising strategies, I want to stress that the following techniques should help clients take control of their own writing processes. As writing tutors, our goal is to produce better writers, not just better texts.

Using Rhetorical Goals to Plan Texts

To create representations of rhetorical tasks that lead to sophisticated goals for addressing readers, making meaning, and producing text, clients need to see planning as explicitly connected to rhetorical problem-solving. Flower terms this type of abstract, rhetorical planning “constructive.” Constructive planning goes beyond generating ideas for content, or “what to say,” in order to direct writers toward recognizing and deeply defining the aspects of a rhetorical problem and establishing rhetorical goals for addressing them.

Peer tutoring sessions can facilitate constructive planning since the give-and-take of conversation with a knowledgeable peer challenges clients to articulate sophisticated rhetorical goals for their texts. Clients may also benefit from a planning tool Flower calls the “Planner’s Blackboard.” Representing the cognitive space in which writers plan, the Blackboard serves as “a visual metaphor for the theory of constructive planning” (Construction 144). The “background” of the Blackboard is content knowledge, yet it also foregrounds three essentials of constructive planning: Purpose and Key Point, Audience, and Text Conventions. Thus the Blackboard explicitly cues students to consider the rhetorical aspects of their writing plans while also facilitating metacognition as it “encourages writers to...create links across these different concerns or to consolidate their ideas by looking at the big picture” (145). In sum, the Blackboard prompts awareness of rhetorical problem-solving that may in turn bolster the creation of sophisticated rhetorical plans that guide composition.

Using Rhetorical Goals to Globally Revise Texts

Working from a rhetorical plan is only one part of the rhetorical problem-solving process, for then writers must carry out this plan in their texts. Rhetorical plans are most fully realized through on-going and post-translation “re-seeing” of text and ideas. Cognitively, reviewing texts involves subprocesses for “evaluating” and “revising.” Flower and Hayes (“Writing”) relate that a writer’s original rhetorical goals are important to this process because they provide the criteria by which writers determine the success of their emerging texts and offer suggestions for where and how the writer should revise.

Writing teachers and researchers have long recognized the importance of arming students with strategic repertoires for complex tasks like revision, yet knowing what strategies are

available doesn't mean clients will choose an effective one.

As part of rhetorical problem-solving, "evaluating" seems supported by metacognitive monitoring skills for reading texts based on the meta-level model. Evaluation also involves clients' abilities to critique and revise their own texts, instead of depending on teachers or tutors to do so for them. Kathleen Blake Yancey calls such writer-directed evaluations "self-assessment." According to Yancey, three types of knowledge underpin self-assessment: self-knowledge of "the fit between what the writer hoped to say and then got onto the page" (15); content knowledge of the writer's topic; and task knowledge of "the role audience and purpose play, strategies for developing a persuasive argument, ways of voicing different kinds of texts" (16). Metacognitive awareness of self-, content, and task knowledge may provide clients with a focal point for critically re-reading their texts.

Self-assessment itself encompasses four steps: (1) knowing, or the self-, content, and task knowledge a writer can verbalize about her/his text; (2) liking, or the criteria s/he can articulate for appreciating her/his text as a reader; (3) critiquing, or the plans s/he can present for changing text to better fit those criteria; and (4) applying, or her/his ability to execute revision plans. Unfortunately, these steps are not self-evident to clients. Yancey suggests that having clients reflect on these processes increases awareness of the influence that rhetorical plans can have on strategies for evaluating and revising texts. Tutors are well-placed to assist with reflective thinking because they often deal with texts-in-progress; thus they can help clients think reflectively about particular writing tasks, not about "writing" in general, and about specific mental activities, not "process" in the abstract. What we want reflection to do for clients, as Flower has said, is to help them "recognize some of the complexity of their rhetorical situations, to acknowledge and to honor multiple and often conflicting goals" (Construction 289) so that they can consciously attend to the ongoing work of rhetorical problem-solving as they revise. Once clients create a revision plan, they must execute it by revising their text. Evaluation encourages clients to focus their revisions on achieving rhetorical goals, but they also need strategies for enacting revisions plans.

Writing teachers and researchers have long recognized the importance of arming students with strategic repertoires for complex tasks like revision, yet knowing what strategies are available doesn't mean clients will choose an effective one. Their choice depends upon "executive control," the evaluation, selection, application, and adaptation of effective cognitive strategies. The basis of executive control is the client's strategic repertoire, but it also depends upon meta-awareness of how a strategy can be applied to a particular writing situation.

My research indicates that once writers see revision as intended to help them realize rhetorical plans, they may be better equipped to select revision strategies tailored to their specific needs. In other words, making explicit to clients that revision is a goal-directed process focused on achieving a richly-defined set of rhetorical goals can make them aware of what strategies they could use to enact a revision plan, why some strategies would be preferable to others, and how the selected strategies could be adapted to a task.

By way of conclusion, I want to emphasize that these tutoring techniques are not meant to teach clients "the" rhetorical problem-solving process, nor are they intended to have clients cultivate awareness for the sake of awareness.

Instead, these techniques address the needs of clients hampered not by unwillingness or inability to plan or to revise, but by a misconception of what planning and revision help writers accomplish. When clients understand writing as a problem-solving process, they are more likely to understand why the planning strategies we call "constructive" and the revising strategies we call "global" are necessary, as well as how to invoke those strategies on specific writing tasks. Therefore, the goal of (un)complicating planning and revising is to make the metacognitive processes supporting rhetorical problem-solving visible and accessible to clients, who then have the option of taking control of these processes for themselves.

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